

ABSTRACT

A method and apparatus is disclosed for processing two or more encoded signals received over a multi-channel communication system to cancel or mitigate coupling and the effects of the channel on the two or more encoded signals. In one embodiment a multi-channel communication system utilizes DMT processing and some form of encoding, such as block coding or convolutional coding. To recover the transmitted signal, processing in the receiver may comprise MIMO processing in conjunction with decoding. The MIMO processing may be configured with decision directed processing to thereby generate one or more cancellation signals based on isolated error terms. Decoding occurs on encoded signals after MIMO processing. Memory may be interspersed or available throughout the system to store incoming symbols that have not yet undergone decoding and MIMO processing. Decoding and MIMO processing may occur sequentially through the channels.